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DEVELOPMENT OF A NAVAL AVIATION CAREER MOTIVATION INVENTORY

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PENSACOLA, FLORIDA

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SUMMARY PAGE

THE PROBLEM

A decline in the pilot retention rate has prompted increased concern over the retention of naval aviators. In direct response to a Navy need, the Naval Aerospace Medical Research Laboratory was tasked to develop a comprehensive, aviation-specific inventory to assess factors influencing aviators to separate or remain in naval aviation. This report describes the methodology employed to develop the inventory. The inventory was developed solely from interviews with aviators.

FINDINGS

An inventory containing 212 statements organized into 10 distinct clusters was developed. Although the inventory is primarily designed to measure career satisfaction/dissatisfaction and retention/separation factors, secondary measures include factors contributing to career goals, career choice, peer support, and career success.

RECOMMENDATIONS

The inventory should be administered to pilots and naval flight officers in various aviation communities to establish normative data. The leading satisfiers and dissatisfiers contributing to career retention and separation should be identified and analyzed by rank and designation. Personnel with inventory values disparate with normative data from their respective communities and rank should be compared against those with congruent values to determine if the inventory has any predictive utility with respect to retention.

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INTRODUCTION

A decline in the pilot retention rate from 58% in 1983 to 53% in 1985 (1) has prompted increased concern over the retention of naval aviators (1, 2, 3). Some sources indicate the recent reduction in aviator retention is due to a sharp increase in commercial airline hires (1), while others maintain the cause is rooted in the nature of extended sea duty (2, 3). In a recent message, Admiral James D. Watkins, Chief of Naval Operations, stated "....Aviator retention has been cyclic in nature since World War II. When airlines hire, Navy and Air Force see reduced aviator retention. We simply can't compete with that draw for some individuals who view flying for the airlines as a better lifestyle," (1). Vice Admiral Robert Dunn, Commander, Naval Air Force, Atlantic, maintains the problem of retaining aviators is further compounded by current global instability. Due to the current world situation, cruises have been extended in length while the number of port calls have been reduced, "...often they are just out steaming around somewhere without port visits for a while, spending 120 days at sea in the Indian Ocean or eastern Mediterranean, standing by to respond," (2). Consequently, as time at sea increases, a proportionate increase of family separation is also experienced. It appears that retaining naval aviators is influenced by both "push" factors (hardships endured due to military demands), and "pull" factors (opportunitues existing outside the military).

The United States Navy currently maintains a program to monitor the major factors contributing to separation from the military (4). Officers separating from service are required to complete the Officer Separation Questionnaire (OSQ), which is generally administered on an individual basis. The OSQ data are compiled each fiscal year. Most recently the following rankings were obtained (5):

FY85 RANKING		FY84 RANKING
1	Too much family separation	1
2	Too much crisis management	2
3	Unable to sufficiently plan and control career	4
4	Suppressed initiative, creativity, professional stimulation	3
5	Insufficient managerial/leadership qualities of seniors	6
6	Lack of recognition for accomplishment/self respect	5
7	Poor utilization of abilities, skills, and education	8
8	Possible erosion of benefits	10
9	Problems with assignment, detailing	9
10	Geographic instability/transient nature of Navy	7

It is important to recognize that the OSQ is not aviation-specific and includes only broad categories of separation factors.

In direct response to a Navy need (6), the Naval Aerospace Medical Research Laboratory was tasked to develop a comprehensive, aviation-specific inventory to assess factors influencing aviators to separate or remain in naval aviation. This effort is in support of a requirement from Admiral Watkins who states:

"....What we can and must do is listen to those aviators who want to stay with us. If we pay attention, and I believe we are, those individuals who could swing one way or the other will remain on board," (1).

The current effort sought to assess factors affecting: (1) career choice; (2) career goals; (3) career satisfaction and dissatisfaction; (4) retention and separation; and (5) peer support; in addition to civilian employment opportunities, background factors contributing to success in a naval aviation career, and spousal and aviator personal characteristics contributing to success in naval aviation. This report describes the methodology employed to develop the career motivation inventory.

METHOD

Subjects. The sample group for the interview phase of this study included 63 pilots and radar intercept officers (RIO) representing 9 Fighter Wing ONE squadrons. In order to achieve a balanced population sample, an attempt was made to psuedo-randomly select an equal number of respondents across rank and designation. Due to the nature of military deployment, the sample was limited to those squadrons exercising ashore.

The second sample of respondents consisted of a group of 55 pilots and RIOs psuedo-randomly selected from 8 Fighter Wing ONE squadrons. Balance across rank and designation was maintained.

Procedure. An interview was used in the first phase of the project. Questions included in the interview schedule were developed from a letter of request from Fighter Wing ONE (6) and emphasized the qualities of face validity, unidimensionality, and variance for scale construction criterion (7). The interviews were conducted in October 1985. Respondents were briefed on the anonymity and purpose of the interviews. The mean interview time was approximately one hour.

An item pool generated from the interviews was developed. All statements obtained during the interviews were included in the item pool; no statements were changed, with the exception of removing redundant statements. The remaining statements were then evaluated in November 1985 by the second sample of pilots and RIOs. A seven-point, equal-appearing interval importance/significance/relevance scale was employed. During this evaluation/judgement phase, respondents were instructed to evaluate the statements from a representative view of the squadron rather than from a purely personal view.

The data from this evaluation phase were analyzed to identify statements that indicate the greatest agreement among respondents and consequently eliminate statements with a high degree of variance. The remaining statements were used to develop the career motivation inventory.

RESULTS AND DISCUSSION

The interviews generated an item pool of 432 statements. Analyses of variance for rank and designation, and univariate statistics were calculated for all 432 statements rated during the evaluation/judgement phase. The analyses indicated that 220 statements had inter-quartile ranges in excess of 2.00, which were not related to differences between rank or designation. These statements were discarded from further use because they reflected considerable variance due to a lack of agreement among raters. The remaining 212 statements and their associated mean evaluations are presented in Appendix A. Although the inventory is primarily designed to measure career satisfaction/dissatisfaction and retention/separation factors, secondary measures include factors contributing to career goals, career choice, peer support, and career success. The inventory can be utilized to measure differences across designation, rank, age, or aviation community.

RECOMMENDATIONS

1. The inventory should be administered to pilots and naval flight officers in various aviation communities to establish normative data.

2. The leading satisfiers and dissatisfiers contributing to career retention and separation should be identified and analyzed by rank and designation.

3. Personnel with inventory values disparate with normative data from their respective communities and rank should be compared against those with congruent values to determine if the inventory has any predictive utility with respect to retention.

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APPENDIX A

CAREER MOTIVATION INVENTORY

1	2	3	4	5	6	7
NO Importance/ Significance/ Relevance	LITTLE Importance/ Significance/ Relevance	SOME Importance/ Significance/ Relevance	MODERATE Importance/ Significance/ Relevance	Important/ Significant/ Relevant	VERY Important/ Significant/ Relevant	EXTREMELY Important/ Significant/ Relevant

Evaluate the following factors in terms of their impact in your decision to choose a naval aviation career.

4.72 Opportunity for travel

5.25 Opportunity for responsibility

4.85 Opportunity for independence

4.85 Love of country

1.60 Negative influence from others toward the other services

3.63 Financial growth

5.09 Leadership opportunity

4.90 Best flight training available

5.91 To fly jets

5.16 To have a meaningful job

4.47 Job security

4.74 Challenge of being a naval officer

1.69 Navy had the best public relations

2.02 Way to leave hometown

4.72 Wanted the ACM environment

1.83 Navy had best looking uniform

Evaluate the following in terms of their importance in the fulfillment of your career goals.

5.80 Commanding officer, squadron

5.18 Increased professionalism

4.04 Additional formal college education, including Post Graduate School

5.29 Rank promotion

4.27 Top gun squadron assignment

4.96 1000 hour point or more (F-14)

3.98 Division officer

4.45 Increase managerial skills

4.15 Instructor, Fighter Weapons School

4.42 Test pilot school

4.64 RAG Instructor

5.73 Recognition of professional excellence

5.38 Mission commander

3.45 Assignment to Naval War College

4.78 1000 traps

2.29 Private pilot's license

5.07 Department head

6.07 Remain in flying billet

5.16 Assignment to desirable geographic location

1.98 NROTC instructor

2.59 Have impact on non-operational matters (quarters, medical care, etc.)

4.31 Travel

Evaluate the following according to their relative contribution to your career satisfaction.

6.53 Enjoyment of flying F-14

6.07 Sense of doing something important

6.05 Professionally competent

5.87 High quality/caliber of colleagues

4.53 Travel

5.04 Port calls

4.61 Seeing subordinates achieve

5.04 Responsibility over one of the country's assets (aircraft)

5.27 Carrier landings

6.02 Camaraderie

6.40 Obtaining wings

5.69 Firing weapons systems

5.44 Elitism

6.07 ACM

5.13 Public recognition

5.71 Peer recognition

5.66 Actual combat flying

4.24 Resolving problems for the troops

5.47 Ability to impact important decisions

5.60 Responsibility at an early age

5.20 Thrill of changing environment

5.29 Constant opportunity to excel

4.98 Feeling of control

5.00 Removed from flying billet to strictly desk job (i.e., DC tour)

2.74 Job becomes too demanding

5.56 Outlook of continued extended personal sacrifice

3.64 Frustration over no personal input in decision making process

4.84 Military pay increases not keeping pace with cost of living

3.89 Lack of authority coupled with greater responsibility

3.54 Lack of interim feedback (use of annual appraisals only)

3.89 Insufficient time allocated to training subordinates

2.33 Recruiter dishonesty

3.11 No training provided for collateral duties

3.36 Lack of moral integrity on the part of seniors

2.24 Personnel inspections

2.49 All suffer in squadron due to the mistake of one individual

3.20 Not being a pilot (NFOs only)

Rate the likelihood of the following civilian job opportunities you perceive are available in civilian life.

5.80 Management positions

5.25 Commercial pilot

5.71 Supervisory positions

4.85 Personnel manager positions

Rate the following background factors as to their effectiveness in preparation or assistance in your naval aviation career. Career includes both training and operational billets.

5.44 Athletic skills for development of mental discipline

5.53 Athletic skills for physical training

4.98 Dealing with other individuals

4.89 Study habits

5.47 Time management skills

5.27 Analytic abilities

1.96 Prior travel experiences

5.13 General communication skills

4.42 General swimming ability

2.26 Acting skills

3.05 Avid reading

3.82 General physical sciences

1.85 Flying model airplanes

5.35 General maturity

5.31 Accustomed to fast learning process

5.51 Good memory

5.69 Ability to focus concentration

4.44 Administrative abilities

5.27 Leadership skills

2.51 Computer skills

1.63 Ability to speak more than one language

Rate the following qualities, traits, and characteristics of your spouse in terms of their contribution toward your success.

6.00 Independence

5.96 Intelligence

6.07 Sense of humor

6.33 Tolerant

6.54 Adaptable

6.00 Patience

5.80 Moral integrity

6.18 Financially responsible

6.07 Supportive of military way of life

6.15 Understanding

6.57 Supportive of spouse

6.22 Positive attitude

6.22 Self reliant

1.35 Engineering background

5.59 High self-esteem

5.30 Outgoing

4.67 Family oriented

6.30 Emotionally strong

5.44 Unselfish

6.09 Common Sense

Rate the following personality traits with respect to their relative importance in your becoming a naval aviator.

5.60 Good sense of humor

6.51 Self confident

6.38 Adaptable to constant changing environment

6.09 Aggressive

5.69 Independent

5.74 Intelligent

5.53 Mature

5.96 Decisiveness

5.49 Team player

6.31 Common sense

2.73 Compulsive

5.80 Competitive

5.33 Leader

2.02 "Bar room show-off"

5.58 Proud

5.78 Initiative

4.65 Extroverted

5.87 "Accepts stress"

5.61 Integrity

5.91 Disciplined

5.49 Goal directed

5.53 Dedicated

5.74 Responsible

2.16 Selfish

4.87 Ambitious

2.09 Single

5.64 Well-rounded

5.42 Mentally compartmentalized

5.14 Forceful

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